

**I. EXECUTIVE SUMMARY****Quarterly Report (April – June 2004)**

Organization:	Pact, Inc.	Date:	22 July 2004
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Program Title: Increasing Water Access in Southern Sudan (IWASS)  
 Cooperative Agreement/Grant No: DFD-G-00-03-00107-00  
 Country(ies)/Region(s): Bahr el Ghazal, southern Sudan  
 Disaster/Hazard: Civil strife  
 Period Covered by This Report: October 2003 – June 2004

**Activities Summary**

This report covers the first three quarters of the annual program cycle, as the majority of activities moved from planning, procurement and mobilization to actual field based implementation only in the third quarter (April – June 2004). All required drilling equipment, vehicles, radios, camp and workshop equipment (see List - Annex 1) was procured through Pact and moved to Bahr el Ghazal by 1 May. All required technical staff were recruited, given training and orientation to Supraid and the Sudan humanitarian context, and mobilized to Twic County along with the equipment. A camp was established at Panliet as the HQ for the Supraid Water Program. Pact facilitated training for Supraid water team in February, using Rural Focus in Loki to deliver a WES TOT course to key team members. This training was followed with two field training sessions in March and May. 1 borehole in Gogrial County and 14 in Twic County (see Table – Annex 2 and Map – Annex 3) were completed by the end of June, providing water for 6 primary schools and 1 PHC Center, as well as the resident populations, a total of about 5000 households (30,000 persons). In each of these communities, the Supraid social mobilization staff were involved in organizing community contributions and participation. Community Water Committees were established (if not previously existing) and received training and orientation to support community ownership and management of the water point, based on the Rural Focus TOT process. A social environment survey was conducted by Pact and Supraid in April in Twic County, identifying issues to be incorporated into the community water program, as well as an environmental assessment of the existing and planned community water points which further informed the implementation of the Supraid drilling program. A week long Capacity Building and Organizational Development training was provided to the Supraid water team in June, and all Social Mobilization team members were trained in community empowerment skills and approaches in Loki (March) and in Nairobi (June). SUPRAID then developed organizational plans, policies and procedures using the skills acquired from the capacity building training.

## Objectives Summary

### **Objective #1: Increase Water Accessibility at the Community Level**

At its completion, this project is expected to provide increased access to potable water for approximately 40,000 people in Bahr el Ghazal, by drilling 20 boreholes with hand pumps in Twic and Gogrial Counties.

Indicator: The indicators for this objective are the number of boreholes completed, average distance traveled for water collection, liters of water available per household and community, and the percent of the population with access to safe drinking water.

Progress towards Objective: Following procurement and transport of equipment, set up of Water Drilling Camp in Panliet, recruitment and training of staff, Supraid Drilling team commenced operations in Gogrial County as the Commissioning for the equipment, and then proceeded to implement priority drilling in 14 locations in Twic County. Sites were selected throughout Twic and Gogrial Counties through consultation and dialogue with a community mobilization team and the SPLM/A. The sites were chosen with consideration to both equity and access, taking into account existing disparities in the allocation of boreholes within the two counties. At present, 15 boreholes have been drilled; 14 in Twic County and 1 in Gogrial. The remaining 5 boreholes will be drilled in Gogrial County. An additional estimated 30,000 people (5,000 households) have access to potable water as a result of this drilling activity, or about 6% of the population of Twic County.

The average time traveled for access to potable water has been halved, from four hours to two, as the number of boreholes in Twic County has increased. While specific data for changes in distance traveled is not available; it is expected that this distance is also greatly diminished. More specific data will be available in the final report.

Budget for Objective #1:	\$ 378,744
Estimated Cumulative Expenditures to Date:	345,082
Estimated Balance:	33,662

### **Objective #2: Establish a Program for Sustainable Water Management**

This project is expected to contribute towards promotion of sustainability of water points in rural communities by equipping Supraid Water Team and Community Water Committees with capacity for sustainable community based water management.

Indicator: Indicators for this objective are the number of training sessions held with Supraid and communities; community water managers trained; and development of an environmentally sound water management policy for the region.

Progress towards Objective: Supraid addressed this objective through initial recruitment of a Social Mobilization and Governance Officer and six other Social Mobilization officers. Pact funded the

attendance of SUPRAID staff to a Water and Sanitation Training of Trainers (TOT) session in Lokichoggio, Kenya, prior to the inauguration of the construction component of the IWA project. Topics addressed at this training session included: health/hygiene education; community mobilization and awareness creation; environmental protection awareness; dependency and self-reliance; cost-sharing; gender, access and controls; leadership; operation and maintenance; and community participation. The session also included a field work/practical training component; a community mobilization and participation training (including guidance on site selection); and a study of borehole access issues and community needs in Mayandit, Koch, and Leer Counties.

SUPRAID advocates extensive collaboration between the beneficiary communities and the drilling crew. Among the services provided by the communities are manual labor (for road clearing, moving equipment and collecting materials); food and assistance with cooking for drilling teams; and participation in the Village Level Committee, which coordinates community participation. SUPRAID also clearly explains the ownership and responsibility of the boreholes to the communities in which it works, with the assistance of the Village Level Committees.

In April 2004, SUPRAID and Pact Kenya conducted a social environment survey in Twic County to identify those social conditions and issues that need to be considered in the design and implementation of the community water points from a feasibility and impact perspective. Specific components of the survey included: assessing the potential impacts of water drilling on the environment, improving service delivery by SUPRAID, assessing sanitation condition (90% of hhs lack basic access) and strengthening the Operations & Maintenance system and project management. From an environmental aspect, specific issues considered were the vulnerability of the county to annual flooding and other climactic conditions, the predominant vegetation, water borne diseases, and water source distribution.

Budget for Objective #2:	\$ 49,082
Estimated Cumulative Expenditures to Date:	38,826
Estimated Balance:	10,256

### **Objective #3: Improve Hygiene and Sanitation in Bahr el Ghazal**

This project is expected to contribute towards promotion of hygiene and sanitation through training of Supraid team members and community based health promoters for hygiene education and education / mobilization of participating communities to construct household pit latrines.

Indicator: Indicators for this objective will be number of community health promoters (CHPs) trained, number of training sessions for Supraid and CHPs and number of new pit latrines constructed by Supraid and the communities benefiting from the Water Drilling Project.

Progress towards Objective: The SUPRAID WES and Social Mobilization staff were provided training through a Water and Sanitation Training of Trainers (TOT) session in Lokichoggio, Kenya, prior to the inauguration of the construction component of the IWA project. Topics addressed at this training session included: health/hygiene education; community mobilization and awareness creation; environmental protection awareness; dependency and self-reliance; cost-sharing; and

gender. Supraid staff utilized training to ensure hygiene awareness was included in all social and community mobilization activities supporting the borehole drilling in 15 communities.

Budget for Objective #3:	\$ 13,627
Estimated Cumulative Expenditures to Date:	11,804
Estimated Balance:	1,824

#### **Objective #4: Enhance the Capacity and Competency of SUPRAID**

A key objective of this project will be to enhance national Sudanese capacity for water drilling by improving SUPRAID technical and management capacity to implement a water drilling project. A secondary objective is to promote Supraid capacity to effectively support community based water management in an environmentally sensitive manner.

Indicator: Indicators for this objective include quality, efficiency and timeliness of Supraid program activities, quality and timeliness of Supraid planning and reporting processes, , (eg the number of boreholes completed according to the original plan, number of community water committees formed, trained and effective),

Progress towards Objective: Supraid has constructed and equipped a permanent camp in northern Bahr el Ghazal, with workshop, drilling equipment and stores to facilitate longer term Sudanese capacity to respond in timely and efficient manner to water needs in a geographic area with high water needs. Through mentoring and organized training (by Pact) and regular monitoring (both in the field and in Nairobi), Supraid Drilling and management team has been exposed to theory and practice in support of efficient management related to water drilling. Two monitoring missions were conducted by senior Pact Program staff in support of mentoring of the Supraid program team. Pact facilitated training for SUPRAID drilling team (by Rural Focus) in borehole drilling, followed by three weeks of field training in environmentally sound drilling practices and techniques.

Pact Kenya organized and conducted a week-long training in June, covering organizational development and technical skills for 11 Supraid Management and Water Drilling staff. This training addressed topics such as NGO management; facilitation skills; strategic planning; gender mainstreaming; resource mobilization; project monitoring, evaluation, and reporting; environmental management; and disaster management. The workshop was followed by development of requisite organizational plans, policies and procedures (financial, information and communication, travel, property management). These skill priorities were identified through SUPRAID's Self-Assessment activity, undertaken with collaboration from Intermon Oxfam in June 2003.

All newly-hired Social Mobilization and Governance (SM&G) officers attended a training session in Lokichoggio, Kenya, in March where they learned practical skills and implementation approaches for community empowerment.

Budget for Objective #1:	\$ 58,435
Estimated Cumulative Expenditures to Date:	45,450
Estimated Balance:	12,985

## **A. Program Success Stories**

### ***Mayen Abun Mixed Primary School***

This is the only school in the entire Twic County with upper primary classes. The school hosts around 3000 pupils from the 6 payams of Twic County. This boarding school was depending on one borehole at a distance of 20 minutes walk as the old borehole in the school had failed. ADRA, SUPRAID and the local authorities agreed to allocate one borehole near the school as a priority. Now pupils can access water round the clock without having the difficulty of walking long distances and having to compete with local community households for water.

### ***Goal Primary Health Center, Mayen Abun***

*"You can now see patients walking easily to collect water from the borehole inside the center. The nearness of the borehole helps them to avoid walking in direct sunlight and heat to fetch water"*  
Deng Atem Barach, Medical Officer with ADRA.

### ***Kurum Primary School***

*"Now the elderly and even the children can walk to fetch water using small utensils. In the past women had to walk for 4 hours to collect water from the toic (surface water). Women now have access to water from this school in the village"* Said a mother in Kurum Village.

## **B. Problems in Achieving Program Objectives**

Problems with procurement and equipment delivery caused delays at the start of the project. The program work plan, including site selection for the boreholes, was completed in November 2003 after ample consultation with SUPRAID staff and community members. However, equipment ordered at this time and necessary to begin borehole construction was not received in Nairobi until March of 2004. Transportation of equipment from Nairobi to the SUPRAID field office in Rumbek was hampered by equipment registration requirements and the need to transfer the equipment via road through Uganda, as well as heavy rains and impassable roads in Equatoria. Construction of the boreholes was also delayed pending the recruitment of a qualified water coordinator. While these delays have resulted in a slower borehole construction agenda than previously expected, the project has been reasonably successful. Since May of 2004, fifteen boreholes have been drilled in the Bahr el Ghazal region, with an additional five expected by the conclusion of this grant period. SUPRAID's access to drilling equipment will allow for expedited construction as future sites are chosen.

***Photos:***

*Completed borehole in Turalei*



*Protected borehole in Ajaktong*



*Borehole in Agok*



*Returning IDPs in Abyei County*



***High Demand for Safe Drinking Water***

Spiritual Leader, Bold Giir of Turalei Payam in his appeal for water point said: *"My village is located in the Gok Zone of Turalei Payam, our attempts at hand drill for water failed for several years, and women have been spending most of their days and nights fetching drinking water. Those who are breast feeding usually have their children suffering from diarrhea as the children are breast fed in between long intervals".*

**Annex 1:**  
**Summary List of Equipment for Supraid Drilling Program**

S/N	EQUIPMENT	SOURCE
1	<b>New Drilling Rig (PAT 301)</b> <ul style="list-style-type: none"> <li>• 2 sets of drilling rods (pipes) – for capacity to drill a total of 100 metres</li> <li>• 2 sets mud-pumps</li> <li>• 1 set drill bits and sub-adaptors</li> <li>• 1 set drilling tools</li> <li>• 1 set pneumatic tools</li> <li>• Basic lubricants</li> <li>• Spare parts for rig</li> <li>• Foam pump with spares</li> <li>• Down the hole (DTH) hammer with accessories</li> <li>• Air compressor with spare parts and accessories</li> </ul>	Thailand
2.	Purchase of New Support Cars: Three pick-ups - 2 Toyota Landcruisers - 1 Toyota Hilux.	Gibraltar
3	New Massey Ferguson MF5355, 4-WD tractor with a canopy.	Nairobi
4	6 – ton trailer	Nairobi
5	2 Water bowsers	Nairobi
6	10-KVA generator	Thailand
7	5 set of Codan Radios with all accessories	Nairobi
8	Mobile workshop	Nairobi

**Annex 2:**  
**Existing Situation and Locations of Borehole – Handpump Construction**

Table 1: Sample Characteristics of Payams in Twic County

Payam	Estimated Population	% of Population Accessing Water from Boreholes	Average Distance for Water Access	Sanitary Situation
Panyok	90,058	50%	>.5kms: 36% >1km: 27% >5kms: 37%	99.3% lack sanitary latrines
Wunrok	83,425	45%	<500m: 27.3% >500m: 27.3% >1km: 36% >4kms: 9.4%	No access to pit latrines
Aweng	79,971	60%	<500m: 40% >500m: 6.7% >1km: 20% >4km: 33.3%	Minimal access to pit latrines



**Table 2: Borehole Locations**

County	Payam	Previous Boreholes	Site/Location	Start	End	Target Pop.
Gogrial	Riau		Maluil	30 Apr. 2004	2 May 2004	218 households; 1308 people
Twic	Ajak Kuac	5 boreholes; all functioning	Atuong Primary School	10 May 2004	13 May 2004	285 Households 1710 people
Twic	Ajak Kuac		Agoc Primary School	14 May 2004	15 May 2004	300 Households 1800 people
Twic	Turalei	17 boreholes; 16 fully functioning	Ayen (Amiol) Primary School	18 June 2004	19 June 2004	818 households 4896 people
Twic	Turalei		Lilil (Magak) Primary School	16 June 1004	17 June 2004	320 Households 1920
Twic	Aweng	11 boreholes; 9 functioning	Wuncuei	21 May 2004	22 May 2004	347 households; 3082 people
Twic	Aweng		Mapper	30 May 2004	31 May 2004	224 households; 1344 people
Twic	Aweng		Malual Gon	16 May 2004	18 May 2004	342 households; 2052 people
Twic	Aweng		Bulyom	19 May 2004	20 May 2004	138 households; 828 people
Twic	Aweng		Pan-Ruel (not functioning)	29 May 2004	30 May 2004	350 Households 2100 people
Twic	Wunrok	23 boreholes; 20 functioning	ADRA (Mayen Abun)	11 June 2004	12 June 2004	School; 3000 pupils
Twic	Wunrok		Kurum Primary School	21 June 2004	22 June 2004	286 households 1716 people
Twic	Wunrok		Goal PHC Mayen Abun	12 June 2004	12 June 2004	250 Households 1500 people
Twic	Wunrok		Agaar (not functioning)	15 June 2004	16 June 2004	320 Households 1920 people
Twic	Wunrok		Wun Akec Bh	23 June 2004	24 June 2004	160 households 960 people
TOTALS (households and persons served)						4924 households 30,136 people
AVERAGES (households/borehole and persons/borehole)						328 households 2000 persons

From the above Table it is noted that:

- ✓ The total number of boreholes drilled with PAT 301 15
- ✓ No of boreholes not functioning (not necessarily dry. No dry Bhs inTwic) 6
- ✓ Estimated Total No households served by borehole 4924
- ✓ Average No of households served by each boreholes 328
- ✓ Estimated Total population served by boreholes 30,136
- ✓ Average population benefiting from each borehole 2000

Non functioning boreholes will be re-drilled and to ensure high levels of success in borehole drilling, field technicians will be trained in basic geological survey and logging techniques at the Kenya Water institute. Existing resources will be used in the re-drilling of the non functioning boreholes

**Annex 3:**  
**Detailed Map of Water Provision Project Area**

## SUPRAID DRILLING SITES

